

Chapter 4 Test

Place the correct sign $>$ or $<$ on the line between the values. (4.1)

1. $7.07 \underline{\quad} 7.7$

4. $-435 \underline{\quad} -345$

7. $0.3 \underline{\quad} 0.33$

10. $\frac{6}{5} \underline{\quad} \frac{5}{4}$

2. $0.333 \underline{\quad} -0.3$

5. $3.551 \underline{\quad} 3.55$

8. $-7.92 \underline{\quad} 7.91$

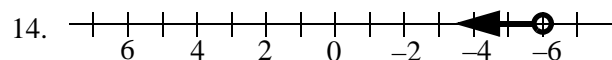
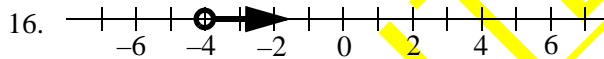
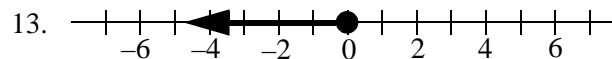
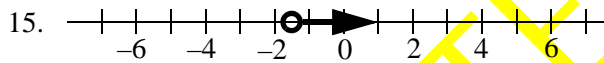
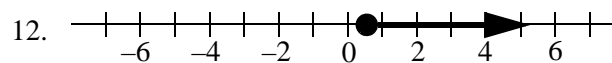
3. $0.046 \underline{\quad} 0.46$

6. $7.55 \underline{\quad} -5.77$

9. $-7.78 \underline{\quad} -77.7$

11. $0.92 \underline{\quad} 0.902$

Write the inequality plotted in the line graphs. (4.1)



On a separate piece of paper, draw a number line and plot the inequalities. (4.1)

18. $x > -2.5$

22. $a \geq 13$

26. $x > -4.5$

19. $y < 1$

23. $y < 0.5$

27. $a \geq 5$

20. $a \geq 9.5$

24. $x > -14$

28. $y < 10.5$

21. $b \leq -2.5$

25. $b \leq -6$

29. $x > -1.5$

Solve. (4.1)

30. $4x - 21 > 43$

34. $-5 - 3x > -18$

37. $\frac{y}{5} + 25 \leq 1$

31. $3.6 + 7.2y < 18$

35. $4.2x - 4.2 < 6.5x + 5$

38. $4x - 14 \geq 22$

32. $-5y + 38 \geq -12$

36. $24 + 12v > -32 + 8v$

39. $53 + 21y > 11$

33. $3.3 \leq 4.5c - 3.8$

Write the sentence as an inequality. (4.1)

40. 8 is less than an amount x .

44. An amount that is at least 40.

41. One-half an amount is more than 7.

45. 32 more than a number is greater than 4.

42. 10.9 is more than and equal to the amount b .46. 50 is more than an amount d .43. An amount less than or equal to -23 .47. One fifth of an amount is greater than -14 .

Solve. (4.1)

48. Test-driving the quarter-mile in his new car, Damian's average run after 5 trials is 12.8 seconds. What is the highest time he is allowed in the sixth run to reach an average of at least 12.7 seconds?

49. The sum of three consecutive odd integers is less than 420. What are the largest values of the three numbers?

50. The perimeter of a rectangle is at least 5220 feet. If the length is four times the width, find the smallest integers that could be used to form a rectangle.

Solve. (4.2)

51. $|a| - 11 = 75$

52. $|b| + 5 = 21$

53. $|c + 5| = 20$

54. $34 = 9 + |g|$

55. $8 + |x| = 45$

Solve and graph. (4.2)

66. $|t - 12| > 34$

67. $|r + 2| \geq 4$

68. $|4b + 12| < 28$

69. $8 \leq |1 + t|$

70. $|22 + y| > 24$

56. $41 = |b| + 32$

57. $|h - 12| = -8$

58. $|x| + 34 = 4$

59. $|2b| + 17 = 54$

60. $14 = 38 + |t|$

71. $2 > |c + 3|$

72. $|y - 34| \geq 20$

73. $|a + 2| \leq 5$

74. $|b| + 54 > 12$

75. $3 < |4 + g|$

61. $|9 + x| = 28$

62. $11 = -|a + 6|$

63. $|y| - 9 = 45$

64. $|b + 19| = 44$

65. $64 = |6b + 4|$

76. $|8 + y| \geq 11$

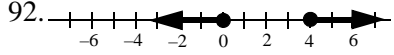
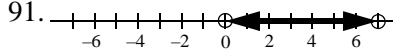
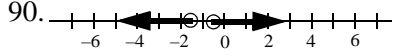
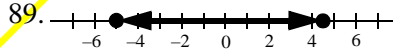
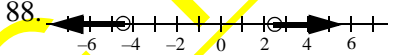
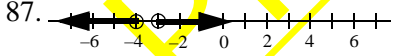
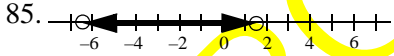
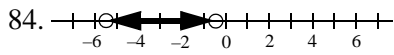
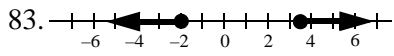
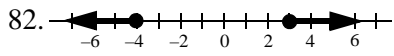
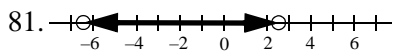
77. $3 \geq |c + 2|$

78. $|y| - 12 > 14$

79. $|z + 3| < 1$

80. $20 \geq |16x + 4|$

Write the—conjunction or disjunction—inequality. (4.2)



Graph the inequalities. (4.3)

93. $4y > x + 20$

94. $5y \geq -8x + 24$

95. $3y < x - 15$

96. $\frac{4}{5}x + \frac{7}{3}y \geq 10$

97. $3x - 2y > 8$

98. $y - 5x < 18$

99. $15 \geq 8x - 4y$

100. $8y \leq 5x - 24$

101. $\frac{2}{3}x + y \leq 7$

102. $18 > y - 4x$

103. $x + y \geq 6$

104. $y \leq \frac{5}{9}x - 5$

105. $4x - 5y < 20$

106. $8 \leq \frac{3}{5}x + y$

Write the inequality represented in the graph. (4.3)

